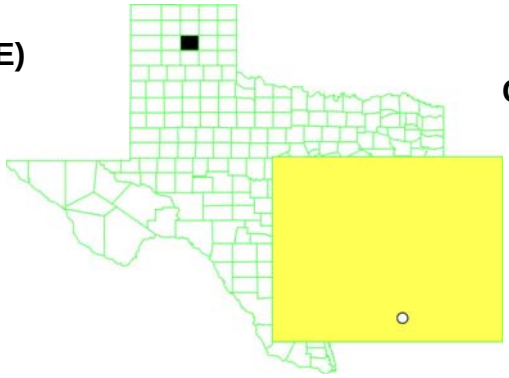
PANTEX PLANT (USDOE)
Carson County, Texas
EPA ID# TX4890110
Site ID: 0604060

Updated: October 2008



EPA Region 6
Congressional District 13

Contact: Camille Hueni
214.665.2231

Current Status

Pantex Plant Record of Decision is Signed: On September 25, 2008, the Environmental Protection Agency approved the Sitewide Record of Decision (ROD) for the U.S. Department of Energy/National Nuclear Security Administration (USDOE/NNSA) Pantex Plant Superfund Site, Carson County, Texas. The document is the only, and final, ROD for the site and selects response actions for 47 contaminated soil units and, in particular, the contaminated perched ground water. The ROD is the culmination of investigations and remedial assessments for soils at 254 potential release units across the site, and contaminated perched ground water associated with the southeast area and Zone 11. Pantex Plant was listed on the National Priorities List on May 31, 1994. Pantex Plant will remain an active site for USDOE/NNSA.

The Pantex Plant ROD is available at http://www.pantex.com/about/environment/erDocs/index.htm .

Current Core Team Actions: As required by the Pantex Plant Interagency Agreement, DOE has submitted a schedule for post-ROD deliverables, including the Remedial Design Submittal Package. EPA and TCEQ will be reviewing the draft Remedial Design documents in the November 2008 – January 2009 timeframe, including DOE's Long-term Monitoring Plan and network for the perched and Ogallala aquifers. Initial reviews of draft documents are projected for completion in January 2009, with discussion of comments to follow. Construction completion of the selected remedy is anticipated by August 2009, and formally presented in the Preliminary Construction Completion Report (PCOR).

Benefits

The site-wide response actions address all inactive areas at the Pantex Plant and perched ground water. The response actions for the Site will address current and potential future threats to human health and the environment, including:
• Releases to soils that pose a direct contact risk to onsite workers;
• Releases to soils at concentrations that may impact perched groundwater above drinking water standards;
• Perched groundwater that is impacted above drinking water standards and requires remedial actions;
• Perched ground water impacted above drinking water standards that could potentially impact the Ogallala aquifer above drinking water standards.

Response actions at the Pantex Plant are dominated by actions to mitigate perched ground water contamination. The perched groundwater meets the yield and quality criteria to be considered a potential drinking water source, so its restoration to drinking water standards is one goal of the remedy. An equally important concern is that contaminants in the perched ground water may act as a source of future impacts to the underlying Ogallala Aquifer. Protecting the Ogallala Aquifer from future impact by addressing contamination in the perched is one of the primary goals of the response action.

Remediation of contamination at the Pantex Plant site will ensure that human health and Regional ground water resources are protected into the future.

National Priorities Listing (NPL) History

NPL Inclusion Proposal Date: July 29, 1991
NPL Inclusion Final Date: May 31, 1994
HRS Score: 51.22

Site Description

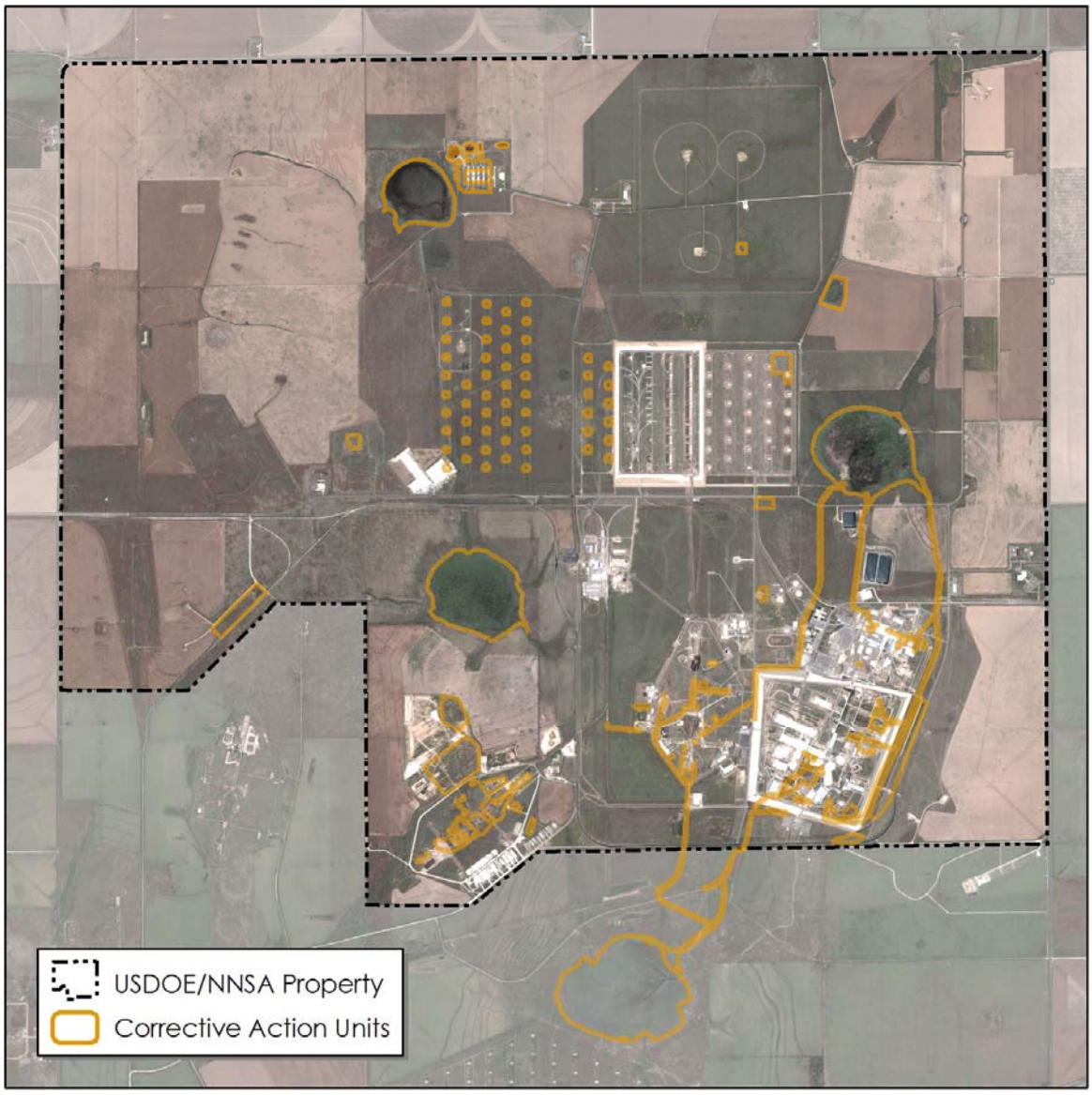
The Pantex Plant Superfund Site (EPA Site #TX4890110527), located 17 miles northeast of Amarillo, Texas, in Carson County, is charged with maintaining the safety, security, and reliability of the nation's nuclear weapons stockpile. The Pantex Plant is a Federal Facility owned by the U.S. Department of Energy/National Nuclear Security Administration (USDOE/NNSA) and managed and operated by Babcock and Wilcox Technical Services Pantex, LLC (B&W Pantex). The facility occupies approximately 16,000 acres with approximately 10,000 of these acres owned by the U.S. Department of Energy (DOE) and 6,000 acres leased from Texas Tech University (TTU). The acreage leased from TTU serves as a buffer zone for site safety and security.

The Pantex Plant was established in 1942 to build conventional munitions and high explosives compounds in support of World War II. The Plant facility was deactivated in 1945 and sold to Texas Technological University, currently known as Texas Tech University, subject to recall by the War Assets Administration. TTU used the property for agricultural purposes until 1951, when the Pantex Plant was reclaimed for use by the Atomic Energy Commission, as a nuclear weapons production facility. Portions of the conventional weapons plant were renovated, and new facilities were built for the manufacture of High Explosive (HE) compounds. Current operations include the development, testing, and fabrication of HE components; nuclear weapons assembly and disassembly, interim storage of plutonium and weapon components; and component surveillance.

The Pantex Plant's historical waste management practices have included thermal treatment of explosives, explosive components, and contaminated liquids and solvents (including test residues of explosives and depleted uranium); burial of industrial, construction, and sanitary waste in unlined landfills; disposal of solvents in pits or sumps; discharge of untreated industrial wastewaters to unlined ditches and playas; and the use of surface impoundments for the disposal of chemical constituents. These prior practices have resulted in the release of both chemical and radionuclide constituents to the environment.

The principal source of ground water for the region is the Ogallala aquifer, the primary unit of the High Plains Aquifer. The Ogallala aquifer is typically composed of fluvial channel deposits of gravels, sands and silts and has a saturated thickness that varies greatly across the site (increases in saturation thickness from south to north below the facility). The Ogallala Aquifer ranges in depth from approximately 340 feet bgs south of the Pantex Plant to approximately 500 feet bgs at the northern Plant boundary. The Ogallala is the primary source of domestic, municipal, and agricultural water supplies for the area. The Amarillo water supply well field, located north of the Plant, produces an annual average of about 18 million gallons per day. The closest of these supply wells is 2,100 feet (640 meters) north of the Plant boundary.

A perched ground water zone, located (on average)150 feet above the Ogallala aquifer, is the shallowest water-bearing zone in the area, and is consequently the first ground water unit affected by the migration of constituents released from the Pantex Plant SWMUs. The largest area of perched groundwater underlying the Pantex Plant is associated with natural recharge from Playas 1, 2, and 4, treated wastewater discharge to Playa 1, and historical releases to the ditches draining Zones 11 and 12. Perched ground water at the site is a potential drinking water source, based on yield and quality.



Regulatory Framework: In the late 1980s, the DOE Office of Environmental Management (EM) initiated the Environmental Restoration Project at the Pantex Plant. In 2000, the USDOE/NNSA succeeded DOE EM as the designated lead federal agency to investigate, assess, and remediate environmental releases at the Pantex Plant.

The Pantex Plant environmental restoration project is subject to the joint authorities of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 United States Code § 9601 et seq.), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (40 Code of Federal Regulations [CFR] 300), and the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. The U.S. Environmental Protection Agency (EPA) is the CERCLA regulatory authority. The State of Texas, as represented by the Texas Commission on Environmental Quality (TCEQ), is the RCRA regulatory authority.

A 1994 Memorandum of Agreement (MOA), between the EPA and TCEQ, established procedures to coordinate and integrate the remedial processes under the federal and state requirements for CERCLA and RCRA, respectively, and to minimize the duplication of effort under equivalent phases of corrective/remedial action. The agreement also established lead and oversight responsibilities for EPA

And TCEQ. Under the MOA, the EPA and TCEQ shared oversight of response actions for chemical releases at the Site. EPA was responsible for oversight of response actions for radiological releases. The CERCLA Interagency Agreement (IAG), effective February 2008, sets forth the roles and responsibilities of the agencies for implementing and overseeing the remedial activities pursuant to CERCLA, the NCP, and Executive Order 12580, as amended by Executive Order 13016. The IAG focuses on the phase of the project from issuance of the Proposed Plan to selection, design, and construction of the remedy.

Wastes and Volumes

The principal soil contaminants at Pantex units considered for remedial action are RDX, trinitrotoluene (TNT), and depleted uranium. Sixteen contaminants above drinking water standards are present in the perched aquifer, dominated by the presence of RDX, hexavalent chromium, perchlorate, and trichloroethene (TCE).

According to an early DOE estimate, approximately 900 acres will have residual soil contamination at closure. The main perched ground water covers approximately 11 square miles, with a current water volume of approximately 15.1 billion gallons (BWXT Pantex/SAIC, 2007). The volume of impacted perched groundwater is approximately 7 billion gallons.

Health Considerations

The ground water pumped from the Ogallala Aquifer provides drinking and irrigation water to the City of Amarillo and the surrounding area.

Explosives; TCE; 1, 2-dichloroethane; chromium; and perchlorate are present in the perched aquifer which is approximately 100 feet, on average, above the Ogallala Aquifer. Pumping of the city water wells has created a cone of depression, causing ground water in the Ogallala underlying Pantex to flow toward the city well field.

Surface water run-off from the facility is directed into on-site playas. All on-site playas are considered wetlands. Texas Tech University Agricultural Research Station uses surface water from Playa 4 for both irrigation of crops and watering livestock.

Interim actions have mitigated potential impacts to ground water and exposure to contaminated soils.

Record of Decision

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Community Involvement

DOE/NNSA, EPA, and TCEQ have routinely met with the public throughout the site investigation and assessment process to discuss the project schedule, and status of ongoing fieldwork, including the implementation of interim corrective measures, interim stabilization measures, and removal actions. A combination of regularly scheduled and special (non-routine) meetings provided opportunities for residents and other interested parties to be involved in cleanup decisions at the site. Since 2003, meetings have been held quarterly to focus on the investigation and evaluation of contaminated sites, and included discussion of CERCLA early actions and interim corrective measures.

Most recently, public review and comments were requested on the remedial alternatives evaluated for the Pantex Plant with public notice of the Proposed Plan on March 17, 2008. DOE/NNSA held a public meeting on March 31, 2008, to explain the Proposed Plan and the alternatives presented, and to receive formal comments. Comments were addressed in the Responsiveness Summary section of the Record of Decision (ROD) (Section 3.0), issued September 2008.

The next community meeting will be December 1, 2008, at the Carson County Square House in Panhandle, Texas, starting at 4:00 p.m. Updates will be provided on development of the long-term monitoring plan and perched/Ogallala well network, and regulatory review of other remedial design documents.

Technical Assistance Grant

Availability Notice: N/A
Letters of Intent (LOI)

1) 6/1/99 - Serious Texans Against Nuclear Dumping (STAND)
2) 6/25/99 - Amarillo Chamber of Commerce
3) 6/25/99 - Amarillo Hispanic Chamber of Commerce
4) 6/25/99 - Baptist St. Anthony=s Health System

LOI Newspaper Notice: 6/16/99`
Grant Award: Awarded on 1/20/00 to STAND.
7105 W. 34th Avenue, Suite E
Amarillo, TX 79109
Pamela S. Allison is the TAG Administrator
Final TAG application for second grant received from STAND on February 6, 2003.
2nd TAG awarded May 2003 for $100,000. Budget/project period: 5/12/03 - 4/12/06.
An additional $51,417 was added to the award in February 2005, extending the budget/project period to 4/11/07.
STAND selected 3 Technical Advisors (TAs).
A compliance review was conducted in mid-summer 2005.

Contacts

EPA Remedial Project Manager:	Camille Hueni	214-665-2231
EPA Community Involvement Coordinator	Donn Walters	214-665-6483
EPA Site Attorney:	George Malone	214-665-8030
EPA Regional Public Liaison:	Donn R. Walters	214-665-6483
TCEQ Project Manager:	Fay Duke	512-239-2443
TCEQ Field Operations	Jim McWilliams	806-468-0520

EPA Superfund Region 6 Toll Free Number: 1-800-533-3508
TCEQ Superfund Toll Free Number: 1-800-633-9363

Information Repositories: Amarillo College Lynn Library
2201 S. Washington
Amarillo, Texas 79109-2411

Carson County Library
401 Main
Panhandle, Texas 79068